

Amendments to the Claims:

- 1 1. **(Previously presented)** A coolable housing jacket (1) for an electric motor, which is
2 manufactured as a cast moulded part, is formed for receiving a concentric internal
3 rotor/stator arrangement (23) together with windings and winding overhang (24) with a
4 through-passage (3) that is symmetrical, concentric and/or coaxial with respect to a
5 hypothetical motor axis of rotation, and which is penetrated by one or more cooling
6 channels (2, 2a-h) to form a coolant circuit, characterised by the housing jacket (1) being
7 an integral casting having a coating of the jacket inner faces including the channel
8 internal walls via a cathodic dip-varnishing process.

- 1 2. **(Previously presented)** A housing jacket according to claim 1, characterised in that
2 the coating thickness is between 10 µm and 50 µm.

- 1 3. **(Previously presented)** A housing jacket according to claim 1, characterised by the
2 use of a dipping varnish with a basis of epoxyaminourethane deposited by a
3 cathophoretic process.

- 1 4. **(Previously presented)** A housing jacket according to claim 1, characterised by the
2 manufacture of the jacket body from aluminium.

- 1 5. **(Previously presented)** A housing jacket according to claim 1, characterised in that
2 the cooling channels (2) end with apertures freely accessible on the outside opening on to
3 at least a first (5a) of plural housing jacket end faces (5a, 5b).

- 1 6. **(Previously presented)** A housing jacket according to claim 5, characterised in that in
2 a second of the housing jacket end faces (5a, 5b) the cooling channels (2) end at a
3 housing wall formed by casting and are thus closed in a sealing-tight manner with respect
4 to the outside.

- 1 7. **(Previously presented)** A housing jacket according to claim 6, characterised in that
2 the housing jacket end faces (5a, 5b) comprise two end faces which are remote from one
3 another and/or parallel to one another, the cooling channels (2) in the first (5a) of which
4 end freely accessibly on the exterior, and the cooling channels (2) in the second (5b) of
5 which end at a housing end wall (6) formed by casting and are thus closed in a sealing-
6 tight manner to the exterior.

- 1 8. **(Previously presented)** A housing jacket according to claim 6, characterised in that
2 the second (5b) housing jacket end face (6) or end wall formed by casting abuts the
3 remaining housing jacket body in an integral manner.

- 1 9. **(Previously presented)** A housing jacket according to claim 7, characterised in that
2 the second (5b) housing end wall (6) formed by casting is provided inside with cavities
3 such that they form deflection chambers and/or transverse ducts (14), which
4 communicate with the cooling channels (2), extend transverse to a hypothetical motor
5 axis of rotation, and join together the channel ends and/or the deflection chambers.

- 1 10. **(Previously presented)** A housing jacket according to claim 6, characterised in that
2 the housing jacket end face (6) formed by casting and sealing the cooling channels (2)
3 has in its cast wall one or more bores (15) or other perforations.

- 1 11. **(Previously presented)** A housing jacket according to claim 10, characterised in that
2 the bores or perforations have a female thread for the fixing of casting core holding
3 elements and/or for receiving screw-type seals (16).

- 1 12. **(Previously presented)** A housing jacket according to claim 11, characterised in that
2 the screw-type seals (16) are provided with sealing rings.

- 1 13. **(Previously presented)** A housing jacket according to claim 10, characterised in that
2 the bores (15) or perforations are formed as inlets or outlets (7, 11) for coolant and
3 communicate with the cooling channels, optionally via a deflection chamber and/or
4 transverse duct (14).

- 1 14. **(Previously presented)** A housing jacket according to claim 5, characterised in that
2 at least on a first housing jacket end face (5a) fixing elements (18) are provided in order
3 to mount a cover, an end shield or pressure ring (17).

- 1 15. **(New)** A coolable housing jacket (1) for an electric motor, which is manufactured as
2 a cast moulded part, is formed for receiving a concentric internal rotor/stator arrangement
3 (23) together with windings and winding overhang (24) with a through-passage (3) that is
4 symmetrical, concentric and/or coaxial with respect to a hypothetical motor axis of
5 rotation, and which is penetrated by one or more cooling channels (2, 2a-h) to form a
6 coolant circuit, characterised by

- 7 (a) a coating on the jacket inner faces including the channel internal walls via a
8 cathodic dip-varnishing process and
9 (b) the housing jacket being an integral casting within which are the cooling channels
10 (2) and transverse ducts (14) connecting the ends of cooling channels of adjacent
11 quadrants .